Aid, Governance, and Growth

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Introduction

Has international aid hindered economic development in developing and transitional countries? If international aid encourages rent-seeking behavior, forestalls economic and political reform, and diverts resources to debt-service, then it is possible that such aid presents, at a minimum, an additional obstacle to economic development. On the other hand, if international aid reduces corruption, improves public and private institutions, and enhances the participation of previously excluded groups, then aid may be the catalyst for economic development. While international organizations have promoted their activities under the banner of furthering economic development and, more recently, reducing corruption and building democratic institutions, whether this aid has been effective is a point of contention in the literature.

We aim to examine whether there is an explicit, casual linkage between international aid, the quality of governance, and economic growth for a sample of developing and transitional countries. Using a newly developed panel dataset, we empirically explore whether such linkages exist and, if they do, the magnitude of the relationship. If there is a significant and negative relationship between international aid, governance, and economic growth, then we should be cognizant of this potential

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detrimental impact when offering policy advice and assistance to developing and transitional countries. Furthermore, if aid does not significantly influence governance or growth, then we should question the provision of aid to developing countries. Only if we find that international aid significantly and positively influence governance and, in turn, economic growth should we promote the provision of international aid.

We believe that this discussion is timely and important given the attention paid to international aid and governance issues in discussions of how to achieve sustainable economic development. The World Bank, for example, outlines the responsibilities of the developed and developing countries as

> …developing countries must strengthen their institutions, promote greater inclusiveness in access to assets, and ensure greater transparency in managing resources (and aid) more effectively…developed countries must increase aid and make it more appropriate; reduce the burden of debt; open agricultural, industrial, and labor markets; and implement incentives for the development and transfer of technologies to developing countries…[2]

The remainder of this chapter is as follows. We first review the debate in the literature on the relationship between international aid and governance. We then present the results of our research. We conclude the chapter by offering policy advice and future courses of research.

[2] See World Development Report 2003, 23-24.

Is there a relationship between aid and governance?

If, as argued by international donor organizations, international aid promotes the development of market-oriented institutions, physical infrastructure, and human capital[3], then there is an explicit, positive and direct casual relationship between international aid and governance, and in turn, economic growth. On the other hand, if international aid is sought after for the rents that can be extracted from its provision; if aid is politicized; or if aid is merely poorly used by the host nation, then it is possible that increased levels of aid negatively impact the quality of governance and economic growth.

Is there a common definition for governance? We must first ask ourselves what is meant by the term "governance" and how can we measure "good governance?" The World Bank argues in the 2003 edition of the *World Development Report* that

> …institutions such as property rights and the rule of law are essential for the creation of human-made assets and the efficient operation of markets as a coordinating institution…

While this statement underscores the importance of institutions that allow for the efficient operation of free markets, we do not believe consensus exists in the literature on the definition or measurement of governance. Even if we could concisely and precisely define governance, how does one objectively determine what factors (corruption, rule of law, transparency, accountability, among others) comprise "good governance?" Having determined what factors positively influence good governance, can we objectively measure these multi-dimensional factors? Given the pivotal role that governance issues

[3] We direct the reader to any of the annual World Development Reports and the World Bank's *Annual Review of Development Effectiveness* (2002) as examples of these arguments.

play in the provision of financial and technical assistance to developing countries[4], we must first establish a set of common percepts against which countries can be ranked in terms of the quality of governance.

World Bank (1992) defines governance as “the manner in which power is exercised in the management of a country’s economic and social resources for development.” Good governance is “epitomized by predictable, open, and enlightened policy making (that is, transparent processes); a bureaucracy imbued with a professional ethos; and executive arm of government accountable for its actions; and a strong civil society participating in public affairs; and all behaving under the rule of law. (World Bank, 1994)” Governance, whether bad or good, is the result of a combination of factors, some of which may not be measurable.

While good governance may be in the eye of the beholder, there are some common precepts by which we can compare countries. We argue that a functioning private sector requires the rule of law; enforcement of property rights and contracts; an independent, strong judiciary with transparent and effective bankruptcy procedures; transparent tax systems; effective bank supervision; and the strict enforcement of bank prudential regulations. These are the hallmarks of good governance, regardless of the formal definition. Fostering such an environment not only reduces opportunities for corruption, but, more importantly, the returns from corruption. Each of these, in turn, stimulates investment, lowers transactions costs, and facilitates economic growth.

Is there a linkage between aid and governance? Can foreign aid influence the quality of public governance? Aid can be used to improve the skills and salaries of public employees; increasing technical efficiency and reducing the propensity to engage

[4] Here we direct the reader to the Article IV consultations on the International Monetary Fund’s website.

in corrupt activities (Van Rijckeghem and Weder 2001). These actions would, in due course, improve the investment climate and stimulate economic growth. While laudable, we doubt that such aid can improve institutions and raise efficiency over the long-term. Training programs may lack sufficient breadth to improve technical efficiency across the public sector. Trained personnel may also leave public service and use their new skills to seek higher wages in the private sector. A key question, often unasked, is whether government revenues will improve sufficiently over the course of the program so the program (and salary incentives) can be sustained after the decline (or outright termination) of foreign aid. If not, the government faces a difficult choice: cut the salaries of trained (and relatively scarce) personnel; or divert scarce resources to supplement the pay of the trained personnel.

Foreign aid subject to conditions, such as that offered by the large multi-lateral international donor agencies, may create sufficient incentives for receiving governments to improve institutions, governance, and economic efficiency. A government that wishes to reform but lacks the political will to do so may be able to move forward with reform by accepting foreign aid. Collier (1997), Stiglitz (1999), and Easterly (2001, 2002), however, argue that attaching conditions to foreign aid does not improve governance. The conditions attached to foreign aid may also not be static, that is, they may be adjusted over time in response to economic conditions in the recipient country.[5] We argue that donor agencies may be unable to withhold funds even if the recipient country fails to meet the conditions attached to the disbursement of funds. Political pressure from donor

[5] We offer, as an example, the case of Argentina which consistently failed to meet the conditions attached to the provision of financial assistance from the International Monetary Fund. Russia in the mid-1990s can also serve as an example of how conditionality evolves over time.

countries and political unrest in the receipt country may result in significant pressure on the donor agency to disburse funds, regardless of performance.

Foreign aid may also promote economic development through the provision of capital that would otherwise be unattainable at low cost in the global capital market. This aid could assist in the development of a market-oriented infrastructure that would stimulate exports and foreign direct investment. The evidence, however, suggests that aid is, in many cases, a source of rents, with adverse effects on the quality of the governance and the incidence of corruption. Foreign aid creates incentives for the reallocation of time and resources away from the production of tangible products in the manufacturing sector to the acquisition of skills and knowledge useful in obtaining a share of foreign aid (Knack, 2001). We argue that the propensity to seek aid is positively related to the level of human capital, that is, the highest trained (and most productive) individuals will shift their attention toward the acquisition of foreign aid as aid levels increase. This resulting allocation of talent and resources is only sustainable as long as aid is flowing; once aid flows decline (or disappear), adjustment must occur.

Empirical Evidence on the Relationship Between Aid, Governance, and Growth

We now turn to the task of estimating the nature of the relationship between international aid, the quality of governance, and economic growth. Recent empirical evidence suggests that increased levels of international aid negatively influence the quality of governance (Knack, 2001). Governance has also been found to positively influence the rate of economic growth (Barro, 1991, 1996, 1999; Scully, 1998; among others). Improving governance is a difficult, but necessary task, in order to increase efficiency and promote economic growth (Tanzi, 1998).

What evidence is there on the relationship between aid and governance? We wish to investigate the hypothesis that, all else being equal, a change in the level of international aid induces a change in the level of governance. While the *a priori* evidence suggests that there is a negative relationship between aid and governance, we leave open the possibility that aid positively influences governance, that is, more aid leads to higher quality governance.

We use the International Country Risk Guide (ICRG) quality of governance index to proxy for the overall level of governance in our sample countries. While an imperfect proxy given the multi-dimensional nature of governance, we believe that this measure is consistent with the literature. We rescale the governance index from its original 0 (totally inept) to 6 (totally competent) range to 0 (totally inept) to 1(totally competent) to simply the analysis of our results. We also employ the ICRG's corruption index, also rescaled from 0 (free of corruption) to 1 (totally corrupt). We obtain our macroeconomic variables from the World Bank's *World Development Indicators (2002)*. We use the annual change in the quality of governance and other variables for the analysis discussed below.[6] See Table 1 for the regression results, Tables 2 for the list of sample countries and dates of observation, and Table 3 for list of variables.

We first ask whether corruption significantly influences the quality of governance. Controlling for public investment as a percentage of GDP[7], we note that

[6] First-differencing the dependent and independent variables controls for the serial correlation of the residuals, that is, the significant correlation of present errors with past errors. First-differencing also removes the impact of time-invariant conditions (religious composition, legal traditions) that may adversely influence our results.

[7] See Everhart (2002) for a discussion of why it is important to control for public investment when investigating the influence of corruption on the quality of governance and economic growth.

corruption significantly and negatively influences the quality of governance.[8] A one-percent change in the corruption index appears to reduce the quality of governance index by one-tenth of one-percent. What does this mean? As the rate of corruption increases, the quality of governance decreases accordingly. A vicious cycle may result whereby increases in corruption reduce the quality of governance, which, in turn, reduces the likelihood that corrupt activities are punished and may also increase the returns to corrupt behavior. This may induce more corrupt behavior, which lowers the quality of governance, and so on. Given that public institutions establish the framework within which free-market systems operate, the direct impact of corruption on the quality of governance may result in increased transactions costs, decreased economic efficiency, and finally, reduced economic growth

We now turn to the question of whether international aid significantly influences the quality of governance. We fail to find a direct relationship between international aid and the quality of governance. We do, however, note the presence of an indirect relationship, that is, international aid influences the level of corruption which, in turn, affects the quality of governance. As aid flows increase over time, the rents that can be extracted from aid increase, and the quality of governance declines. The policy implication is clear: *efforts to combat corruption and improve the quality of governance should not rely on increased aid flows.*

[8] We investigate whether corruption and the quality of governance are endogenously related and are unable to reject the null hypothesis of exogeneity. With respect to model selection, we again use the Likelihood Ratio (LR) test and F-Test to determine whether our data suggests that the individual effects are jointly equal to zero. We then investigate the appropriate form of the estimator and are unable to reject the null hypothesis that the country-specific effects are jointly equal to zero for the sample. We are able to reject the null hypothesis for the time-specific effects at the 1% level of significance using the LR and F-tests. Based on these results, we present the one-way time effects Within estimation.

What is the relationship between corruption, aid and growth? Following the literature, we model per-capita GDP growth a function of human and physical capital, macroeconomic conditions, international aid, and corruption and governance.[9] Surprisingly, from the perspective of the literature, corruption does not appear to significantly influence the change in per capita GDP over time.[10] While the estimated coefficient for our corruption variable is negative, suggesting that increased corruption does retard economic growth over time, the insignificance of the estimated coefficient prevents us from drawing this conclusion. We fail to find a specification where corruption has a direct and significant effect on economic growth. We believe that this result suggests that the influence of corruption is more diffuse than previously thought in the literature, that is, corruption may influence growth indirectly through its influence on economic efficiency, transactions costs, and governance. We have already shown that corruption affects the quality of governance, thus the question is raised: does the quality of governance affect economic growth?

We find that the quality of governance has a strong, unequivocal impact on economic growth. A one-percent change in the quality of governance appears to induce a 4-percent change in the rate of economic growth. For a country currently growing at 2% per annum, an ten-percent increase in the governance score would raise the growth rate to

[9] The question of endogeneity between growth and public and private investment has been raised in previous work with conflicting results. However, when we test both public and private investment we fail to reject the null hypothesis of exogeneity with growth. We then turn to the model selection process, utilizing the LR and F-tests. Using these tests, we fail to reject the null hypothesis that the individual effects are jointly equal to zero for the country-specific and time effects. Based upon the results of the LR and F-Test, we present the pooled OLS estimates.

[10] We employed a variety of estimators and failed to detect a statistically significant relationship between corruption and economic growth. Similar non-significant results were found for corruption using a number of permutations of these and other variables. We drop human capital (infant mortality) after the base estimation due to the absence of significance in any number of permutations on the specification.

approximately 2.9 per cent per annum. For countries that have ignored governance quality, the policy implication is striking: *improvements in governance far outweigh the potential gains from investments in physical and human capital*.

Why is this result so dramatic for developing and transitional countries? Countries that ignore the rule of law, let red tape interfere with free-market commerce, and let corruption run rampant cannot improve the rate of economic growth without first addressing the problems of governance. Improving governance, we argue, requires effort and the sure, swift, and fair application of law, but does not require significant amounts of foreign aid relative to investments in physical infrastructure, for example. As governance improves, the marginal return to improving governance eventually falls, that is, we do not believe a monotonic relationship exists between good governance and economic growth. Past some point, resources will enjoy a higher rate of return when invested in human and physical infrastructure, but without improvements in governance, these returns can not occur.

Returning to the question of corruption, the transmission channel from corruption to growth is now clear. Corruption lowers the quality of governance. As the quality of governance declines, *economic growth declines at a rate faster than the decline in the quality of governance*. The policy prescription is clear: actions to combat corruption and enhance the quality of governance are likely to enhance economic growth.

We turn to the final question of this chapter, what is the impact of international aid on economic growth? We find that changes in international aid and changes in per capita GDP are negatively related, that is, international aid appears to lower the rate of economic growth among the sample countries. This result confirms the earlier results in the literature that international aid, on whole, does not appear to improve economic growth for developing and transitional countries. While we acknowledge that there are many cases of successful projects funded in whole or in part by international aid, we believe that the empirical evidence supports the argument that increased levels of aid are detrimental to the objective of sustainable development.

Conclusion

At the beginning of this chapter we asked the question whether international aid is harmful to economic development. We additionally asked whether international aid significantly influences the corruption and the quality of governance in developing and transitional countries. The policy implications of these questions are profound: if international aid promotes rent-seeking behavior, dilutes the quality of governance, or impedes economic growth, then the activities of many international donor organizations are called into question. On the other hand, failing to find these effects or finding that international aid improves governance, reduces corruption, and enhances growth, would lend credence to the activities of these organizations.

We found that international aid directly increases corrupt activities and retards the rate of economic growth. We also found evidence to support the hypothesis international aid, thought increased levels of corruption, lowers the quality of governance. Coupled with the empirical finding that the quality of governance and economic growth are positively related, this result provides evidence of an indirect channel from international aid and corruption through governance to economic growth. These findings not only support the previous findings in the literature but provide some of the first evidence on the detrimental impact of international aid on corruption, governance and growth.

The policy implications of our results are significant. For countries with poor governance and high levels of corruption, investments in physical and human capital will not produce the same rate of return as investments in governance and anti-corruption efforts. Only when these institutions are firmly established and operating effectively should resources be allocated to large physical and human capital projects. Furthermore, the empirical evidence suggests that international aid has, over the past thirty years, failed to improve the rate of economic growth, reduce corruption, or improve the quality of governance in the sample countries. While we continue to recognize that there are many projects that are funded in whole or part by international aid that are considered successful, our results suggest that, in the aggregate, international aid does not achieve its macroeconomic objectives. International aid may not, as the World Bank suggests, be a necessary component of sustainable development.

Table 1

Aid, Governance, and Growth[11]

Variable	Corruption	Governance Quality	Governance Quality	Economic Growth
Private Investment to GDP				.416**
				(.117)
Public Investment to GDP				-.001
				(.173)
Foreign Direct Investment as a percent of GDP	-0.005**			
	(0.002)			
Debt Service as a percentage of exports			0.0007**	
			(0.0003)	
Corruption		-0.12**	-0.20**	-3.00
		(0.06)	(0.03)	(2.37)
Governance Quality				4.13**
				(1.54)
International Aid as a percent of imports	0.0006**		0.0001	
	(0.0003)		(0.0002)	
International Aid as a percent of government expenditures				-.059**
				(.025)
Corruption * Public Investment to GDP		-0.02+		
		(0.01)		
Constant	0.0003		0.003	-.121
	(0.005)		(0.02)	(.101)
R^2	0.05	0.65	0.05	.06
degrees of freedom	597	581	597	432
Estimator	Random Effects	Fixed Effects	Random Effects	Fixed effects

[11] Note: **, *, + denote significance at the 1%, 5%, and 10% level, respectively. White corrected standard errors are reported. All variables transformed into first differences.

Table 2

Sample Countries and Periods

Country	Observation Period	Country	Observation Period
Argentina	1984-1999	Azerbaijan	1998-1999
Bangladesh	1984-1999	Bolivia	1987-1999
Brazil	1984-1998	Bulgaria	1990-1999
Chile	1984-1999	China	1984-1999
Colombia	1984-1999	Costa Rica	1984-1998
Cote d'Ivoire	1986-1999	Dominican Rep.	1984-1999
Ecuador	1984-1999	Egypt	1984-1999
El Salvador	1984-1999	Estonia	1998-1999
Guatemala	1984-1999	Guinea-Bissau	1987-1999
Guyana	1987-1999	Haiti	1984-1999
India	1984-1999	Indonesia	1984-1999
Iran	1984-1999	Kenya	1985-1999
Kazakhstan	1998-1999	Korea Republic	1984-1999
Lithuania	1998-1999	Madagascar	1985-1999
Malawi	1984-1999	Malaysia	1984-1999
Mexico	1984-1999	Morocco	1984-1999
Namibia	1990-1999	Nicaragua	1990-1999
Pakistan	1984-1999	Panama	1985-1999
Papua New Guinea	1984-1998	Paraguay	1984-1999
Peru	1984-1999	Philippines	1984-1999
Poland	1989-1999	Romania	1991-1999
South Africa	1984-1999	Thailand	1984-1999
Trinidad & Tobago	1984-1999	Tunisia	1984-1999
Turkey	1984-1999	Uruguay	1984-1999
Venezuela	1984-1999	Yugoslavia	1998-1999

Table 3

Variables and Sources

Variable Description	Variable Source
Quality of the Bureaucracy	ICRG
0 (Totally Inept) to 1 (Totally Competent)	Authors' Calculations
Corruption	ICRG
0 (No Corruption) to 1(Totally Corrupt)	Authors' Calculations
Gross Domestic Product per capita	World Development Indicators (WDI)
Public Investment to Gross Domestic Product	Authors' Calculations
Private Investment to Gross Domestic Product	Authors' Calculations
Aid as a % of central government expenditures	WDI
Exports of goods and services as % of GDP	WDI
Imports of goods and services as % of GDP	WDI
Foreign Direct Investment, net as % of GDP	WDI
GDP Growth (Annual % Change)	WDI
Inflation, GDP deflator (Annual % Change)	WDI
Inflation, Consumer Prices (Annual % Change)	WDI
Total population	WDI
Population Growth (Annual % Change)	WDI
Debt Service as % of Exports	WDI

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